

**THE DEVELOPMENT, CONSTRUCT VALIDITY, AND CLINICAL UTILITY  
OF THE HEALTHY HUMILITY INVENTORY**

A Dissertation

by

ALEXANDER EDWARD QUIROS

Submitted to the Office of Graduate Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2006

Major Subject: Psychology

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Approved by:

Co-Chairs of Committee, David Rosen  
Les Morey

Committee Members, Robert Heffer  
Michael Duffy

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## **ABSTRACT**

The Development, Construct Validity, and Clinical Utility of the  
Healthy Humility Inventory. (August 2006)

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Research on humility has long been handicapped by the lack of a valid and reliable measure. This research focuses on constructing and validating a measure of Healthy Humility, defined as an unexaggerated, open perception of the abilities, achievements, accomplishments, and limitations of oneself and of others – a perception that focuses primarily, but not exclusively, on the value of the non-self. Through a series of two separate studies using a total sample of 678 undergraduates, an 11-item scale scored on a 6-point Likert scale was developed. A third study using a sample of 183 undergraduates used measures of self-esteem, hope, existential meaning, depression, and anxiety to validate and explore the relationship between the Healthy Humility Inventory (HHI) and the aforementioned variables. Regression analyses supported hypothesized relationships between the HHI and measures of hope and existential meaning, and the trend of the relationship between measures of self-esteem and the HHI, though not significant, also followed along the lines of the hypothesized relationship. A hierarchical regression analysis demonstrated that the HHI explained a significant amount of variance ( $p < .05$ ) on measures of depression and anxiety above and beyond that explained by self-esteem.

To my wife, my future children, and my family

## **ACKNOWLEDGEMENTS**

I would like to thank my committee co-chairs, Dr. David Rosen and Dr. Les Morey, my committee members (Dr. Robert Heffer & Dr. Michael Duffy), and Associate Dean Larry Oliver for their guidance and support throughout the course of this research.

Thanks also to friends, colleagues, faculty, and staff at Texas A&M who have helped me make this difficult journey as well as all of the great Latino and Latina psychologists who have inspired me throughout my graduate career.

Most importantly, I would like to thank my wife, Karina, for putting up with my less than humble side, my parents for giving me such a strong upbringing, and to my future children who have been waiting for me to get this dissertation done.

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## INTRODUCTION

In recent years researchers in the field of psychology have turned to studying the more positive aspects of the human psyche (e.g. strengths and virtues) and their influence on mental health. However, scientific research on the virtue of humility has been limited due to the lack of a valid and reliable measure of humility. As a result, little progress has been made in studying a virtue that could add to the understanding of established constructs such as self-esteem, hope, spiritual meaning, depression, and anxiety. This study involved the construction of a valid and reliable measure of healthy humility, and once completed, the measure was used to investigate the relationship between healthy humility, self-esteem, hope, spiritual meaning, depression, and anxiety.

### *What Is Healthy Humility?*

Ask for examples of humble individuals and most people will mention historical figures such as Jesus, Gandhi, Martin Luther King, Jr., and Mother Teresa. In their place modern society has held aloft as paragons of humanity self-aggrandizing actors, singers, politicians, wealthy business leaders, and athletes. In the ivory towers of academia, many researchers, professors, and students scramble to be king of the hill while simultaneously expending large amounts of energy protecting and shoring up fragile, self-enhanced veneers of confidence and success. This imbalanced emphasis on pride, high rank, arrogance, and greed has caused society to overlook the benefits of healthy humility; possibly due, at least in part, to uncertainty about its true nature. The field of

psychology, with its history of and experience in scientifically studying human emotions, can greatly advance our understanding of this virtue adding to the increasing knowledge base of positive psychology and its potential value in mental health.

To date, very little empirical research has been published on humility (Exline & Geyer, 2004). A literature search conducted by Tangney (2000) as well as the author of this research revealed that in practically every research study that has referred to humility, it has been peripheral to the focus of the research. Furthermore, when humility was mentioned, the definition implied by the researchers' use varied from low self-esteem to lack of arrogance. As a consequence the definition of humility has for the most part remained unhealthy and negative, leaving out its healthy, positive aspects. Commonly used dictionaries define humble with terms such as not special or important (*Cambridge Advanced Learner's dictionary online*, 2003); of low hierarchy or scale (*Merriam-Webster dictionary online*, 2003), meek, of low rank (*American Heritage dictionary*, 1985); and lower in esteem (*Onelook Dictionary*, 2003). The same dictionaries also define humble as not proud (*Cambridge Advanced Learner's dictionary online*, 2003; *Merriam-Webster dictionary online*, 2003), not arrogant (*Merriam-Webster dictionary online*, 2003), and unpretentious (*Onelook Dictionary*, 2003). So why are some definitions more positive than others? Why the inconsistency? Part of the confusion, at least in Western cultures, may be due to humility's ties to early Judaism, Christianity, and Islam.

### *Humility and Religion*

In addition to Judaism, Christianity, and Islam other major religions, such as Buddhism, Confucianism, Hinduism, and Taoism, describe humility as an important virtue. Some religions, such as Buddhism, even go so far as to state that true enlightenment cannot be achieved without humility, a process entailing "letting go" of ones ego. Even though they each define humility in a similar fashion, they sometimes differ in their focus. The monotheistic faiths (Judaism, Christianity, and Islam) focus primarily on the idea of lowering oneself or acknowledging that one is nothing when compared to an almighty Deity. In contrast Taoism, Hinduism, Buddhism, and Confucianism, focus more on the forgetting of self or letting go of ones ego identity in order to become a part of a larger, broader spiritual principle or power. This is not to say that one aspect of humility is ignored by the other group of religions, simply that the doctrines espoused by each faith has influenced what aspect of humility is emphasized.

Of the three monotheistic faiths, Christianity is the only faith to raise a historical figure, namely Jesus, to a level on par with God. Although Jesus would readily be described as humble by Christians, his life, as told by the Christian scriptures, does not describe this carpenter as an individual with low self-esteem or a sense of unworthiness— two words often used to define humility. Furthermore, he was not portrayed as passive and submissive until the final days of his life. Despite this role model, many lay Christians still associate humility with low self-esteem, passivity, and submissiveness. This may be due in part to the historical treatment of humility in early Christian writings. From the perspective of two early Christian writers who focused on

humility, St. Bernard de Clairvaux and St. Benedict, such descriptions of humility makes sense (Casey, 2001). Both of these individuals were setting guidelines appropriate for religious lifestyles in an era in which psychological mindedness was not known and silence was sometimes elevated to the status of a vow. In the case of early Benedictine monks and other cloistered monks (e.g. Trappist, Dominican), who took these vows of silence, the head of the religious orders had little recourse but to evaluate the quality of a priest's or monk's spiritual life on the basis of outward behaviors. Walking with stooped heads, obeying commands without question, and being submissive to those of higher rank and God were common ways of showing that you were making efforts to live a Holy life. Further perpetuating the limited view that humility equates to unworthiness and lowliness is an inherent comparison between humans and God in most monotheistic definitions of humility (see Casey, 2001 for further discussion).

The monotheistic faiths often contrast the limitations of humanity (e.g. mortality, weakness) to the greatness of an all-powerful omnipotent Creator. In short, a finite human compared to infinitely large God is infinitely small. Hence the enduring teachings that anything a human does is minor and trivial when compared to the acts of the God.

O Lord, what is man, that thou dost regard him, or the son of man, that thou dost think of him? Man is like a breath, his days are like a passing shadow.  
(Judaism and Christianity; *Psalms* 144:3-4)

Can a man be of benefit to God? Can even a wise man benefit Him?  
(Judaism and Christianity; *Job* 22:2)

... man is created weak.

(*Islam*, 4:28)

It is little wonder that from our modern, individualistic, 21st century American perspective, much of what was written about humility has connotations of low self-esteem, submissiveness, and unworthiness (Casey, 2001).

In contrast, the aforementioned non-monotheistic faiths focus less on the comparison of humans with some greater ideal and focus more on letting go of one's ego identity in order to more fully partake of a higher principle (Peterson & Seligman, 2004). In these faiths, humility is not based on outward sign of submission or on comparing oneself to a Deity, but rather, they focus on a state of mind in which the self is almost, if not completely, forgotten. Hinduism, Confucianism, Taoism, and Buddhism emphasize that this state of mind is key to humility and ultimately to enlightenment.

Be humble, be harmless,  
Have no pretension,  
Be upright, forbearing;  
Serve your teacher in true obedience,  
Keeping the mind and body in cleanness,  
Tranquil, steadfast, master of ego,  
Standing apart from the things of the senses,  
Free from self;  
Aware of the weakness in mortal nature.

Hinduism, *Bhagavad Gita* 13.7-8

In this passage we see the description of humanity as weak, but without the comparison to some greater being. It also describes being “free from self” and apart from “the things of the senses”. In the following excerpt from the Doctrine of the Mean, the loss of ego identity is alluded to as a reality that is not perceived by the senses, a world of ideas and morals.

The life of the moral man is plain, and yet not unattractive; it is simple, and yet full of grace; it is easy, and yet methodical. He knows that accomplishment of great things consists in doing little things well. He knows that great effects are

produced by small causes. He knows the evidence and reality of what cannot be perceived by the senses. Thus he is enabled to enter into the world of ideas and morals.

Confucianism. *Doctrine of the Mean* 33

An even clearer example can be seen in the following excerpts from the Tao Te Ching and the Diamond Sutas of Buddhism. The loss of ego identity is described as essential to attaining and/or maintaining humility.

He who knows glory but keeps to disgrace,  
Becomes the valley of the world.  
Being the valley of the world,  
He finds contentment in constant virtue,  
He returns to the Uncarved Block.

Taoism. *Tao Te Ching* 28

Subhuti, what do you think? Does a holy one say within himself, "I have obtained Perfective Enlightenment"? Subhuti replied, "No, World-honored One... If a holy one of Perfective Enlightenment said to himself, Such am I, he would necessarily partake of the idea of an ego-identity, a personality, a being, a separated individuality."

Buddhism, *Diamond Sutra* 9

Both of these excerpts describe a lack of humility as being separated from something greater than the individual. The Taoist described returning to the Uncarved Block by lowering oneself, by becoming a valley. Also, if one keeps in mind that Buddhism sees humility as an essential element of perfective enlightenment, the Buddhist scripture described the lack of humility inherent in stating that one has "obtained Perfective Enlightenment," as a separation from a greater state of being, a form of fragmentation. Yet modern interpretations of humility appear to differ on the degree to which one is supposed to lose one's ego identity or individuality.

The extent to which one is supposed to "lose oneself" appears to be correlated to the level of individualism endorsed by the cultures from which each particular faith finds



its roots. In areas where Buddhism, Confucianism, Hinduism, and Taoism are most practiced, such as in southern and eastern Asia, community and family are given greater importance than the individual. It is not surprising then to find that losing one's ego identity is a much easier concept to grasp and preach. Teaching humility from this perspective is more in tune with the cultural values. In the United States and Europe, areas where Christianity dominates, teaching humility from the perspective of losing one's individuality, one's ego identity, is more difficult, especially when so much emphasis in western psychology is placed on having high self-esteem, "finding" yourself, or "taking care of yourself." This overemphasis on the self, as will be argued later, is contrary to a key characteristic of humility—that of being other-focused.

#### *Current Perspectives on Humility*

More recently, theologians, psychologists, philosophers, and other scholars who have thoroughly probed the topic of humility have broadened this virtue's definition to include more than just a comparison to an Ultimate Being or Ideal. Richards (1992) defined humility as "having oneself and one's accomplishments in perspective...[and] to understand yourself and your moral entitlement sufficiently clearly that you are disposed not to exaggerate about these". Templeton (1997) also described humility in a similar light:

Humility is not self-deprecation. To believe that you have no worth, or were created somehow flawed or incompetent, can be foolish. Humility... is knowing you were created with special talents and abilities to share with the world; but it

can also be an understanding that you are one of many souls created by God, and each has an important role to play in life. (pp. 162-163).

Five years ago Tangney (2000) took these and other definitions and synthesized a more complete definition of humility:

[Humility is] a rich, multifaceted construct, in sharp contrast to dictionary definitions that emphasize a sense of unworthiness and low self-regard.

Specifically, the key elements of humility seem to include:

1. Accurate assessment of one's abilities and achievements (not low self-esteem, self-deprecation).
2. Ability to acknowledge one's mistakes, imperfections, gaps in knowledge, and limitations (often vis-à-vis a higher power).
3. Openness to new ideas, contradictory information, and advice.
4. Keeping of one's abilities and accomplishments – one's place in the world – in perspective (e.g. seeing oneself as just one person in the larger scheme of things).
5. Relatively low self-focus, a “forgetting of the self,” while recognizing that one is but one part of the larger universe.
6. Appreciation of the value of all things, as well as the many different ways that people and things can contribute to our world. (pp. 73-74)

The most parsimonious explanation for such varied definitions of humility may be that humility varies in intensity or degree like so many other human strengths and virtues (i.e. hope, courage, and joy). If the negative and positive aspects of humility are

placed on a continuum [see Figure 1], unhealthy humility, defined in this study as a lack of self-esteem and often temporary portrayal of oneself as lowly and/or unworthy, would be found at one end. At the other extreme would be healthy humility which for this study will be defined as an unexaggerated, open perception of the abilities, achievements, accomplishments, and limitations, of oneself and of others – a perception that focuses primarily, but not exclusively, on the value of the non-self.

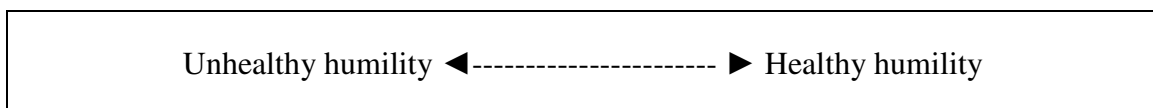


Figure 1: Humility Continuum

### *Healthy Humility and Self-Esteem*

Self-esteem (SE) is the evaluative component of an individual's self-concept (Bednar, Wells, & Peterson, 1989; Baumeister, 1993a; Campbell & Lavalley, 1993; Gray-Little, Williams, & Hancock, 1997; Rosenberg, 1965). A high SE individual would evaluate his/her self-concept as positive while a low SE individual would evaluate his/her self-concept as negative or neutral (Baumeister, 1993b, Bednar, et al., 1989; Campbell et al., 1993; Rosenberg, 1965). High SE individuals have been shown to be more accepting of their weaknesses and have positive feelings of self-worth (Deci & Ryan, 1995; Greenier, Kernis, & Waschull, 1995); two characteristics of healthy humility. Additionally, high SE individuals appear to be more open to information about themselves (another characteristic of healthy humility), going so far as to seek out positive and negative feedback more readily than low SE individuals (Northcraft &

Ashford, 1990; Trope, Ferguson, & Raganathan, 2001). Yet high SE individuals have also been characterized as engaging in self-enhancing strategies in order to avoid negative self-relevant events (Greenier, et al., 1995; Tice, 1993). Some of these strategies include self-serving attributions (Fitch, 1970), establishing unsuitably risky goals when their self-concept is threatened (Baumeister, Heatherton, & Tice, 1991), or comparing themselves to others that they themselves have labeled as less fortunate (Gibbons & McCoy, 1991). These latter behaviors are not consistent with healthy humility and have also brought into question the utility and validity of SE as a construct. These inconsistencies in the SE research though have lead researchers to further investigation self-esteem.

During the resurgence of research on SE in the late 80's and early 90's, investigators indicated that SE could no longer be understood as simply high or low, but that other dimensions such as the stability of SE needed to be considered (Baumeister, 1993b; Brockner, Wiesenfeld, & Raskas, 1993; Greenier, Kernis, & Waschull, 1995; Kernis, 1993; Rosenberg, 1986; Savin-Williams & Demo, 1983). As a consequence, SE could now be subdivided into four categories based on two axes: level (high/low) and stability (stable/unstable) [see Figure 2]. Individuals with stable SE tend to maintain their self-concept regardless of external cues such as self-attributions based on life events, level of success on a task, and feedback while individuals with unstable SE tend to experience differing magnitudes of SE usually due to interpretations of the aforementioned external cues (Baumgardner, 1990; Greenier, et al., 1995; Harris & Snyder, 1986; Kernis, 1993; Rosenberg, 1986). The resulting four categories are:

1. Stable High SE: Maintain positive self-concept regardless of external cues.
2. Unstable High SE: Fluctuating positive self-concept based on external cues.
3. Unstable Low SE: Fluctuating negative/neutral self-concept based on external cues.
4. Stable Low SE: Maintain negative/neutral self-concept regardless of external cues.

When stability of SE is taken into consideration, much of the apparent contradictions of the aforementioned findings of high SE are explained. The stable SE individual will not base his/her SE on external factors as would the unstable SE individual. Thus, the stable high SE individual will base their SE on internal cues derived from contributing to the community, furthering self-knowledge, or personal spirituality (Greenier, 1995; Kernis, 1993). The stable high SE individual would also be less likely to engage in self-enhancing strategies and would be more likely to admit their limitations, be open to information, and value themselves (qualities of healthy humility). Hence, the

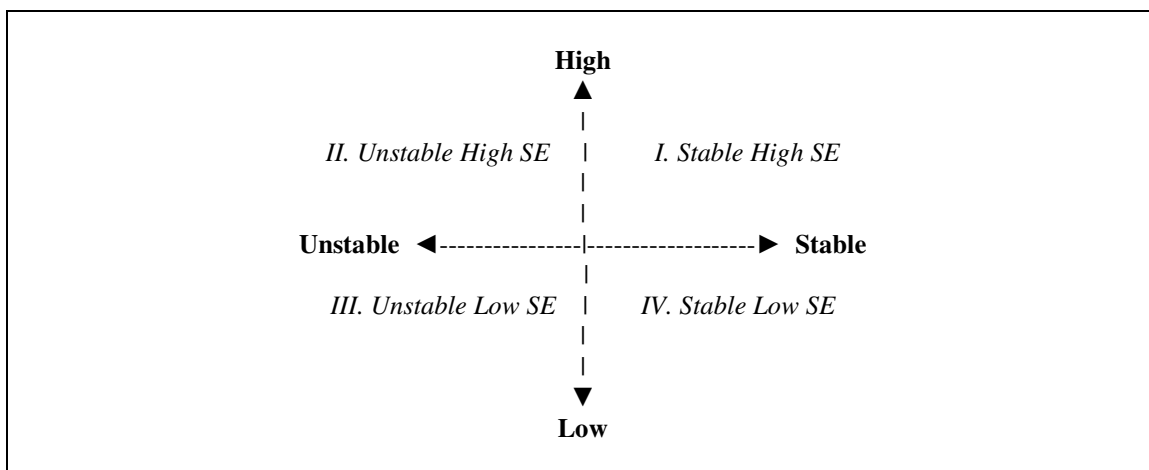


Figure 2: Two Axes of Self-Esteem

characteristics of an individual with stable high SE leads the author to hypothesize that stable high SE is positively related to healthy humility.

Individuals characterized by the other three combinations of level and stability of SE (i.e. unstable high SE, unstable low SE, and stable low SE) display qualities that, according to the hypotheses of this study, should be progressively less related to healthy humility. Unstable high SE and unstable low SE individuals tend to avoid negative feedback, failure, or negative events in order to protect their fragile and often inaccurate self-concept (Bednar, et al., 1989; Greenier, Kernis, & Waschull, 1995; Kernis, 1993; Kernis, 1995; Kernis, Cornell, Sun, Berry, & Harlow, 1993; Tice, 1993). This avoidance, coupled with the aforementioned self-enhancing strategies, prevents an individual from gaining an accurate assessment of their abilities and achievements, acknowledging their limitations, keeping their abilities and accomplishments in perspective, and appreciating the value of others.

The stable low SE individuals display qualities of unhealthy humility and hence are hypothesized to also be negatively correlated with healthy humility. These individuals experience continuous negative self-worth and find little value in themselves (Baumeister, 1993a; Baumeister, 1993b; Bednar, et al., 1989; Greenier et al., 1995; Rosenberg, 1986). Additionally, stable low SE individuals are not open to positive or negative external cues, have distorted self-concepts, feel that they and their actions are of little worth, and are highly self-focused (Bednar, et al., 1989; Greenier et al., 1995; Kernis, 1993; Northcraft & Ashford, 1990) – all qualities found in unhealthy humility.

### *Healthy Humility and Spiritual Meaning*

Klinger (as cited in Mascaro, Rosen, & Morey, 2004) conceptualized meaning as the ideas that underlie an object or event. But when one discusses meaning from within the context of existentialism, meaning is a much more complex construct. Although few studies have focused exclusively on existential meaning, various studies have looked at explicit and implicit meaning—two subcomponents of existential meaning (Mascaro & Rosen, 2005). Implicit meaning encompasses what most individuals think of when they discuss meaning. In essence, it relates to the extent to which an individual acts and holds beliefs consistent with an ideal definition of what it means to live a meaningful life (Wong, 1998a). Explicit meaning, on the other hand, is the extent to which an individual is aware of a specific structure or framework for living a meaningful life (Debats, 1998). But according to Mascaro et al. (2004), these two definitions of meaning together did not fully explain what he originally termed Spiritual Meaning and later called Existential Meaning (Mascaro & Rosen, 2005; for the purposes of this study, these two terms will be used interchangeably). Existential meaning is defined as “the extent to which an individual believes that life or some force of which life is a function has a purpose, will, or way in which individuals participate (Mascaro, et al., 2004, p. 847; see also Mascaro & Rosen, 2005).” This definition encapsulate the concept that people are active participants in a meaning that transcend them, and that each individual has a particular function or part to play in manifesting that meaning. By conceptualizing existential meaning in this way, it is linked to a calling by some higher being or force. This calling, or vocation, is a key element that, when combined with the definitions of explicit and

implicit meaning, make up the foundation of Existential Meaning. Mascaro and colleagues then proceeded to construct and validate a scale, the Spiritual Meaning Scale (SMS), that measured how an individual's overall sense of meaning connects explicitly to the concept of transcendence and spirituality (Mascaro et al., 2004).

Because the constructs of Existential Meaning and Healthy Humility are relatively new, the relationship between them has not been fully investigated. From a theoretical perspective though, Spiritual Meaning and Healthy Humility may share much in common. For example, both constructs place an importance on self-knowledge (i.e. recognizing one's talents and limitations). In fact, one of the seven factors from the Personal Meaning Profile (Wong, 1998a), a measure of implicit meaning and by extension a subcomponent of existential meaning, was labeled self-acceptance and defined as a humble acceptance of one's limitations. Furthermore, both constructs incorporate an element of self-transcendence. For implicit meaning, self-transcendence means involvement in and finding value in an activity that has ramifications beyond the individual self. In the definition of healthy humility, self-transcendence is related to valuing all things and people that are not part of the self. Therefore, it is expected that both constructs will be highly correlated, but because Existential Meaning taps into the "why's" of events and behaviors and healthy humility taps into "how" one lives their life, it is also expected that measures of each variable will be able to discriminate between the two distinct concepts.



### *Healthy Humility and Hope*

Snyder, Irving, and Anderson (1991) defined hope as, "... a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal directed energy), and (b) pathways (planning for the goal)" (p. 287). This definition consists of three main components -- goals, pathways, and agency. From the perspective of Snyder et al. (1991; see also Snyder, 2002) all human actions are goal directed and as such provide an anchor for this theory of hope. Goals provide a mental target for a sequence of actions and can take the form of visual images and/or verbal descriptions. Furthermore, goals can vary in their temporal frames, short term versus long-term goals, as well as the degree of details incorporated into the goal, vague goals versus specific goals. Snyder et al. (1991) also indicated that there are two general types of goals. One, positive goals, aims to obtain, maintain, or improve upon a goal. The second type, forestalling negative goals, aims to stop something before it happens or delaying an unwanted outcome. In short, the goal is what a person, "hopes for."

The second element of hope, according to Snyder's theory of hope, has been identified as pathways. Pathways are the means by which the individual intends to achieve his/her goal. High hope individuals produce a plausible route to an established goal and simultaneously hold a sense of confidence that this route is efficacious. As compared to low hope individuals, high hope individuals tend to appear more confident about the route they have delineated for themselves as they work towards a goal (Snyder et al., 1991). Furthermore, high hope individuals demonstrate greater flexibility in thinking and are able to produce multiple pathways to their goals (Irving, Snyder, &

Crowson Jr., 1998; Snyder, Harris, Anderson, Holleran, Irving, Sigmon, Yoshinobu, Gibb, Langelle, & Harney, 1991). As a person gets closer to the intended goal, high hope individuals tend to refine pathways and tailor them to more efficiently achieve their goals. In short, pathways become the, “how am I going to do this.”

Lastly, agency is the individual’s level of motivation and sense of self-efficacy. This is the individual’s perceived capacity to reach an established goal using any of the pathways that the individual may have generated. This element of hope becomes especially pertinent in the presence of an obstacle to achieving a goal. Individuals with high agency will channel their energies towards either pushing through an obstacle or finding another pathway to their goal.

In sum, the individual with high hope has thought of multiple ways of achieving a specified goal, is motivated to achieve that goal, and feels that he/she can achieve that goal. Furthermore, high hope individuals, at some level, will also understand that the process of achieving a goal is a repeating process that builds upon itself (Snyder, 1995; Snyder, Harris, et al., 1991). The high hope individual will see a need to regularly replenish self-motivation (e.g. self-talk such as, “I can do this,” or “nothing’s going to stop me.”) as well as a need to regularly reevaluate the efficacy of the route one is taking towards a goal. If one of these two elements are missing or significantly lessened, that is, should motivation wane or the number of pathways diminish, then the sense of hope diminishes or disappears. Ultimately, Snyder’s theory hinges on the assumption that human behavior is goal oriented and the degree to which one pursues these goals and the manner in which one chooses to pursue these goals differs among individuals.

On the other hand, Herth (1991) felt that a definition of hope that focused primarily on goal oriented behaviors was too narrow. In her model, hope is comprised of two related but distinct factors- generalized hope and particularized hope. Generalized hope consists of an overall positive view that transcends the limits of time. Particularized hope, on the other hand, is concerned primarily with specific time-valued outcome and is more akin to Snyder's theory of hope. Herth (1991) further postulates that both spheres of hope share six common dimensions- affective, behavioral, cognitive, affiliative, temporal, and contextual. The affective dimensions centers on feelings related to anticipation; the behavioral dimensions centers on taking action to effect an outcome in at least one of four areas: psychological, physical, social, and religious; the cognitive dimension centers on positive perceptions of oneself and/or of others; the temporal dimensions centers on the experience of time; the affiliative dimension focuses on the mutuality of hopes; and contextual dimension focuses on life situations from the external environment that pertains to the persons hope. As she developed her hope scale, Herth attempted to incorporate elements of psychology, physical health, social factors, and spirituality in the items she generated for her scale. Of particular relevance to the study is Herth's incorporation of an interconnectedness component– the extent to which an individual perceives support from and spiritual connectedness to others (Herth, 1991).

Having high hope would require some lack of self-focus (focuses on the goal rather than the self) and a reasonable amount of self-knowledge (especially when evaluating the efficacy of pathways); therefore, hope ought to be positively related to

healthy humility (Snyder, personal communication, October 2001). The degree of self-knowledge will influence the number of possible pathways generated by assisting the individuals in determining possible routes that individual may take given his or her particular talents and skills. Furthermore, self-knowledge will influence the degree to which an individual feels confident in his or her ability to take action using the pathways generated (agency). The greater the degree of self-knowledge the less likely it will be that an individual will pursue an unrealistic route towards a goal. Additionally, the additional element described by Herth, spiritual connectedness, should tap into the tendency for individuals with healthy humility to perceive oneself as part of a greater whole (i.e. interconnected with the world around him/her). Therefore, the author hypothesizes that hope, especially as conceptualized by Herth (1991), will correlate positively with higher levels of healthy humility.

#### *Healthy Humility, Depression, and Anxiety*

As psychology continues to put forth efforts in understanding and alleviating mental illness, research on mental disorders and the factors related to these disorders, provide psychotherapists with invaluable knowledge and tools. In renewing psychology's focus on positive aspects of the human psyche, Seligman (1998, January) helped spotlight existing research and stimulated new research that have yielded increased understanding of factors that help protect individuals from mental illness. Of the four constructs discussed so far, self-esteem (Baumeister, 1993; Bedner, et al., 1989) existential meaning (Mascaro et al., 2004, Mascaro & Rosen, 2005) and hope (Arnau, R. C., in press; Snyder, 2002; Irving, Crenshaw, Snyder, Francis, & Gentry, 1990) have

been shown to be associated with increased positive affect and decreased negative affect. But because of a lack of a reliable and valid measure of humility, no studies have been conducted that directly investigate the relationship between healthy humility and mental health. Although the primary focus of this study is the construction and validation of a reliable and valid measure of healthy humility, a small set of pilot data on depression and anxiety, the two most common forms of mental illness, was collected to help validate the newly constructed Healthy Humility Inventory (HHI). As was found with studies involving existential meaning (Mascaro et al, 2004) and hope (Arnau, in press; Snyder, 2002), it was hypothesized that healthy humility as measured by the HHI would likewise correlate negatively with measures of depression and anxiety, and that it would explain a significant amount of variance above and beyond that explained by existential meaning and hope.

### **SUMMARY OF HYPOTHESES**

Because this study will attempt to look at the relationship between Healthy Humility and various other variables, the hypotheses are listed below for the purpose of summarizing the expected results.

- H1. Healthy humility will be positively correlated with stable high SE and negatively correlated with stable low SE, unstable low SE and unstable high SE.
- H2. Healthy humility will be positively correlated with spiritual meaning.
- H3. Healthy humility will be positively correlated with hope. Related sub-hypothesis:  
Healthy humility will be more highly correlated with Herth's (1991) definition of hope because of the additional spiritual component in her definition.
- H4. Healthy Humility will be negatively correlated with both anxiety and depression.

## **METHODS: PART ONE - CONSTRUCTION OF A HEALTHY HUMILITY INVENTORY, PHASE ONE**

### *Participants*

In the first phase of this study, approximately 495 undergraduate students enrolled at Texas A&M University in College Station, TX were administered the Healthy Humility Inventory (HHI) and the Marlowe-Crowne Social Desirability scale (short form A; MCSDS-A) in a classroom setting. The students voluntarily signed up on a sheet announcing the study on a board established by the psychology department for the purpose of announcing research opportunities. When students who have signed up for the study arrived at a pre-specified time and location, they were asked to read and sign an IRB approved informed consent sheet before completing the packet of questionnaires.

Before any data was analyzed, questionnaires that displayed perseverance in scoring were removed (i.e. 85% or more of items are given the same rating; about 75 items on the HHI and 9 items on the MCSDS-A). This disqualified two individuals; 493 participants remained in the data set. Seventy-eight percent of the participants were female and 56 % were freshmen, 10% were sophomores, 15 % were juniors, and 19% were seniors. The average age was 18.6 and ages ranged from 18 – 29. Missing data on the measures were replaced by the mean of the scores on that particular scale.

### *Measures*

Healthy Humility Inventory (HHI): This inventory, scored on a 6 point Likert scale, asks participants to rate themselves on characteristics of healthy humility. The

items resulted from research team meetings consisting of one Professor, two Clinical Psychology Graduate Students (including the author), and 3 senior undergraduate students taking a course in Directed Research Studies; each contributed to the pool of 100 items used on this scale. Words and phrases associated with healthy humility were generated by the group after each individual had read Tangney's (2000) article and chapter eight of Richard's (1992) book *Humility*. After the items generated were gathered, the research team was asked to categorize the items according to the six characteristics described by Tangney (2000). Calculation of the probability that 3 out of 5 raters would assign an item to the same category as the author by chance resulted in a probability of .035; that is, there was less than a 5% chance that 3 raters would have randomly assign an item to the same category as the author. Items which the author and at least three raters had reached an agreement on its categorization were kept. Items to which only two raters agreed with the author were deleted or, when appropriate, modified so that at least three raters reached agreement. Items to which only one rater agreed with the author were discarded unless three or more raters agreed with each other, but not with the author. In this case, the item was kept and reassigned to the new category suggested by the raters. Of the over 200 items originally generated, 88 items were included in the initial HHI. On average about 11-13 items were included for each of the six hypothesized factors of Healthy Humility. (See Appendix A for a list of the initial 88 item HHI, see Appendix B for the items arranged by factor).

Marlowe Crowne Social Desirability Scale- Short Form A (MCSDS-A): This 11 item true/false scale measures social desirability and has been shown to have adequate



construct validity (Crowne & Marlowe, 1964; Reynolds, 1982). The scale can be seen in Appendix C.

#### *Procedure*

Next, individual items correlating greater with the overall score on the MCSDS-A than with the overall score on the HHI were eliminated based on Jackson's (1970) differential reliability index (DRI; as discussed in Morey, 2003). In the differential reliability index:

$$(r_1^2 - r_2^2)^{1/2}$$

" $r_1$ " represents the correlation between the item and the HHI and " $r_2$ " represent the correlation of the item with the MCSDS-A. If an item's correlation with the MCSDS-A approaches or is greater than the same item's correlation with the HHI ( $DRI < 0.2$ ), then the item was eliminated. These items would have little discriminant validity. This procedure was followed because although social desirability can bias a measure, some of the items included in the MCSDS-A also describe elements of healthy humility. Therefore, eliminating the effects of social desirability all together from the HHI was not desirable. Table 1 shows the items that were eliminated.

For the purposes of the Confirmatory Factor Analysis (CFA), model fit was determined through the use of Amos 4 (Arbuckle & Wothke, 1999). Several indices can be used to determine the quality of fit for a model, but the most commonly used indices are the Comparative Fit Index (CFI) and the Bentler-Bonnet Normed Fit Index (NFI). Values greater than .90 on these indices indicate a good fit (Kline, 1998). Additionally, the root mean square residual (RMR) and the root mean square error of approximation

Table 1. The 25 Items Removed due to Their High Correlation with the MCSDS-A

Item 1	I see myself as common	Item 26	I enjoy the feeling of being correct
Item 2	I understand that the more I learn, the less I actually know	Item 27	I enjoy being the center of attention
Item 3	I feel overtaken by life	Item 28	I stay out of the spotlight
Item 6	I live virtuously in spite of heavenly rewards.	Item 30	I become upset with others for failing me
Item 8	I acknowledge that my joys may be another's pain	Item 33	I assume inferiority of self
Item 12	I remove myself from the concerns of the world	Item 43	I do not have blinders to the world (tunnel vision).
Item 13	I see the world in an unexaggerated way	Item 50	I yearn for fame
Item 14	I understand that all experience is flawed	Item 51	I remain part of the world, but away from worldly concerns
Item 15	I see myself as superior to others	Item 59	I am empty of self
Item 19	I am comfortable with myself as I am	Item 60	I search for meaning
Item 21	I become upset when others fail to heed me	Item 72	I put aside my pride
Item 25	I become upset when I am wrong	Item 73	I allow my values to be changed
		Item 78	I forget the self

(RMSEA) were also used. These absolute fit indices compare the hypothesized model with a model that fits the data exactly; hence, small deviations from the hypothesized model and the model that fits the data exactly are required in order to meet the cutoffs. Values for the RMR should be less than .09 and less than .08 for the RMSEA (Hu & Bentler, 1999). Ideally though a cutoff of .05 and .06 for the RMR and RMSEA, respectively should be achieved.

## **RESULTS: PHASE ONE**

The six factor model tested in this study did not provide an adequate fit to the data (NFI= .504, CFI= .606, RMR= .095, RMSEA= .062). Because another purpose of this study was to reduce the number of items and because eliminating items would increase the fit of the model, items that did not correlate well with their assigned factor ( $R^2 < .6$ ) were eliminated starting with the lowest correlation. This procedure did not produce any models with adequate fit indices. An exploratory factor analysis (EFA) was then conducted using maximum likelihood methods of extraction with varimax rotation in order to guide subsequent model construction. The EFA produced 18 factors with eigenvalues greater than one of which only 7 were interpretable (see Table 2). The factors were Other-Focused, Spirituality, Seeing Value in Others, Accurate Assessment of Oneself, Keeping One's Place in this World in Perspective, Openness, and Self-awareness. Based on the information provided by the EFA, the predicted factor, Acknowledgement of One's Limitations, was not supported by the data. In its place, the EFA implied two new factors: Spirituality and Self-awareness. Furthermore, the items that correlated with Accurate Assessment of Oneself could more accurately be described as Seeking Knowledge of Oneself; hence, the name was change for future procedures.

A new model was constructed based on the information obtained through the EFA and the theories that drove the original model. Some of the items were moved to new categories based on the information obtained by the EFA and five new items were added in hopes of bolstering those factors for which only two items loaded adequately.

The first two were derived from the perspective of both the Western and Eastern religions in hopes of avoiding a bias towards only one religion or another. The latter three were derived from prior items that had been narrowly discarded during the initial development of the 88 item HHI. The new items were:

- 1) I believe in something greater than myself. (Spirituality)
- 2) I am part of something greater than myself. (Spirituality)
- 3) I am no more important than anyone else. (Perspective)
- 4) I seek out new experiences. (Openness)
- 5) I often challenge my beliefs. (Openness)

Appendix H shows the items that have been associated with the 7 factors of the new model as well as the new item numbers on the refined version of the HHI. This newer 39-item version of the HHI (see Appendix I) was based on the original theories and the 7 factors from the EFA.

Table 2. Factor Loadings, Study One, Phase One\*

<i>Item</i>	Other-Focused	Spirituality	See Value	Accurate Assessment	Perspective	Openness	Self-Awareness
71	.647						
86	.580						
82	.527						
65	.520						
58		.729					
79		.721					
48		.575					
46			.760				
47			.551				
24			.402				
31				.766			
36				.629			
22				.525			
54					.574		
53					.503		
55					.379		
41						.685	
38						.575	
34							.588
35							.577

\*(Whenever possible, at least three items were retained per factor.)

#### *Other-Focused*

- Item 71 I am in tune with others needs before my own.  
 Item 86 I show gentleness towards others  
 Item 82 I desire to help others  
 Item 65 I have compassion for others

#### *Seeing Value in Others*

- Item 46 I know that my views are not the only views  
 Item 47 I acknowledge that others have things to offer me  
 Item 24 I acknowledge that there will always be those who know more than me

#### *Keeping One's Place in the World in Perspective*

- Item 54 I reflect on my social role  
 Item 53 I have the ability to self reflect  
 Item 55 I balance being alone and participating society

#### *Spirituality*

- Item 58 I am guided by some higher being  
 Item 79 I have the ability to kneel in prayer  
 Item 48 I believe that all things happen for a reason

#### *Accurate Assessment of Oneself*

- Item 31 I think it is important to know myself  
 Item 36 I want to know my true self  
 Item 22 I put forth my energies into knowing myself

#### *Openness*

- Item 41 I value criticism and praise equally  
 Item 38 I am open to criticism

#### *Self-Awareness*

- Item 34 I am attuned to self flaws  
 Item 35 I am attuned to my abilities

## **METHODS: PART ONE - CONSTRUCTION OF A HEALTHY HUMILITY INVENTORY, PHASE TWO**

### *Participants*

Approximately 183 undergraduate students enrolled at Texas A&M were recruited for the purposes of this study. Undergraduate students enrolled in an introductory psychology course were offered an opportunity to earn 3 of 5 research credits required by the class; one credit for finishing the initial set of questionnaires with all measures used for this phase and study two as well as two credits for completing the Rosenberg Self-esteem Scale (RSES) daily for one week. These students voluntarily signed up and filled the questionnaire online through an online subject pool system established in the department of psychology at Texas A&M University.

### *Measures*

The same measures used in Phase 1 were used for Phase 2 with the exception of the use of a newer version of the HHI.

Healthy Humility Inventory (HHI): This 39 item inventory, scored on a 6 point likert scale, asks participants to rate themselves on characteristics of healthy humility. This is the version of the HHI derived from the results of Phase 1.

### *Procedure*

The second phase of study one replicated phase 1 using the newer version of the HHI. As in phase 1, questionnaires that displayed perseverance in scoring were removed before any data was analyzed (i.e. 85% or more of items are given the same rating; about 75 items on the HHI). This disqualified three individuals; 180 participants remained in

the data set. Three-fourths of the participants were female (the effects of the male to female ratio will be discussed later) and almost 70% of the participants were freshman (16.7% were sophomores, 7.2% were juniors, and 6.7% were seniors). The average age of the participants was 18.7 and ranged from 18-25. Any missing data on the scales were replaced by the mean of the corresponding scale. Additionally, the DRI was determined for each item of the HHI, but no items were eliminated (i.e. all items'  $DRI > 0.20$ ).

## **RESULTS: PHASE TWO**

The hypothesized model resulting from phase 1 was a poor fit for the data (NFI= .715, CFI= .818, RMR= .085, RMSEA= .081). As a consequence, the author attempted to increase the fit of the model by first eliminating items that did not correlate well ( $R^2 < 0.6$ ) with their assigned factor starting with the lowest correlation. This produced models with poor fit and too few items for each factor. Next the author eliminated factors from the original hypothesized model based on their high correlation to other factors. Items originally associated with those factors were also removed so that the subsequent models would be based on theory rather than artifact from the data set. If the removal of that factor increased the fit indices, the author brought back all of the items associated with the remaining factors and proceeded to eliminate items that correlated less than 0.60 with their assigned factor one at a time starting with the lowest correlation. Items were removed from the model until either the fit indices did not improve significantly or factors were left with fewer than three items. This model was then compared to a model in which the factor that most correlated with other factors was removed; hence starting the procedure once again.

This procedure eventually resulted in an eleven item, four factor model with fit indices of NFI= .896, CFI= 0.952, RMR= .052, and RMSEA= .064 (see Table 3, see also Appendix K for final version of HHI). The four remaining factors were Spirituality, Other-Focused, Seeking Knowledge of Self, and Openness. A ten item, four factor model that excluded Item 7 [I want to know my true self] had a higher NFI index but all other indices were slightly worse (NFI= .903, CFI= 0.948, RMR= .055, and RMSEA=



.074). Including item 7 though offered the better balance between fit indices and a model that included the most number of factors and items originally hypothesized. Furthermore the difference between the  $\chi^2$  for the eleven item model and a nested model in which the two highest correlating factors were combined ( $\chi^2_{\text{eleven item model}} = 66.293$ ,  $df = 38$ ;  $\chi^2_{\text{nested model}} = 156.337$ ,  $df = 41$ ) was significant, indicating that the more complex model fits the data better. The reliability of the new 11 item measure was determined to be  $\alpha = 0.8285$  and the mean score was 55.6 ( $SD=5.67$ ). Due to intercorelation of factors and the low number of items for each factor, the factors are not intended to be used separately.

Table 3. Factor Loadings, Study One, Phase Two\*

<i>Item</i>	Other-Focused	Spirituality	Seeking Self-Knowledge	Openness
32	.793			
34	.792			
24	.691			
12		.983		
1		.660		
2		.654		
14			.811	
15			.695	
7			.535	
35				.642
36				.630

*Other-Focused*

Item 32 I have compassion for others  
 Item 34 I show gentleness towards others  
 Item 82 I desire to help others

*Seeking Knowledge of Self*

Item 14 I think it is important to know myself  
 Item 15 I seek wisdom  
 Item 22 I want to know my true self

*Spirituality*

Item 12 I am guided by some higher being  
 Item 1 I believe in something greater than myself  
 Item 2 I believe that all things happen for a reason

*Openness*

Item 35 I keep my opinions open to change.  
 Item 36 I often challenge my beliefs.

## METHODS: PART TWO, VALIDATION OF HEALTHY HUMILITY INVENTORY

### *Participants*

The data was collected concomitantly with data from phase two.

### *Measures*

Healthy Humility Inventory (HHI): This 11 item inventory, scored on a 6 point Likert scale, asks participants to rate themselves on characteristics of healthy humility. The reliability of this measure has been measured to be  $\alpha = 0.8285$ . The HHI can be found in Appendix L.

Rosenberg SE Scale (RSES): A 10 item self-report scale, scored on a 5 point Likert scale, assesses an individual's SE. Developed by Rosenberg (1965), this scale has been shown to have adequate validity and reliability ( $\alpha = .92$ ; see also Gray-Little, Williams, & Hancock, 1997; Shevlin, Bunting, & Lewis, 1995). The full scale can be found in Appendix D.

Snyder Hope Scale (SHS): A 6 item self-report scale scored on an 8 point Likert scale assesses an individuals sense of hope. It has good construct validity (Snyder, Simpson, Ybasco, Borders, Babyak, & Higgins, 1996) and it consists of two factors measuring agency and pathways. This scale has been shown to have reliability, with  $\alpha$  coefficients ranging from 0.74 to 0.95 (Snyder, Simpson, Ybasco, Borders, Babyak, & Higgins, 1996). See Appendix E for a copy of the scale.

Herth Hope Scale (HHS): A 30 item self-report scale scored on a 4 point Likert scale assesses an individual's sense of hope. This scale has adequate construct validity

(Herth, 1991) and measures a broader definition of hope than the SHS. In addition to agency and pathways, the HHS also measures an individual's perceived support and spiritual connectedness to others. The alpha reliability coefficients range from 0.75 to 0.94 (Herth, 1991). The HHS can be found in Appendix F.

Spiritual Meaning Scale (SMS): A 14 item self-report scale scored on a 3 point Likert scale assesses an individual's "belief that life or another power of which life is a function has a purpose, will, way in which individuals participate" (Mascaro, et al., 2004). A significant strength of the SMS, is that it has been shown to be independent of individual's tendencies toward answering in a socially desirable way. In other words, this measure is robust enough to not be unduly compromised by attempts to respond in a manner consistent with efforts to make oneself look good. The scale has an internal consistency of  $\alpha = .89$  (Mascaro et al., 2004). The SMS can be found in Appendix G.

#### *Procedure*

After signing up for the study, participants were redirected to an internet web page containing the consent form and all five questionnaires. Prior to signing up for the project, participants were informed that they would have to fill out a short questionnaire (the RSES) daily for the seven days after filling out the initial set of questionnaires. The average score of the RSES over the seven days was used to determine the level of SE (High vs. Low) and the standard deviation (SD) of the scores was used to determine stability (unstable vs. stable). A low SD is equivalent to a stable level of SE while a high SD is equivalent to an unstable level of SE.

## RESULTS: PART TWO

Before a Pearson bivariate correlation was conducted to explore the strength of the relationship between the HHI and the scores on the HHS, SHS, and SMS, a multiple regression was conducted to determine if gender, age, and classification (freshman, sophomore, etc.) accounted for a significant amount of the variance from the HHI. Despite the greater number of females and freshmen, gender, age, and classification were not significant predictors of the HHI ( $R^2 = .005$ ,  $F(3, 181) = .288$ ,  $p < .834$ ). The standardized  $\beta$  for gender was .026,  $p < .744$ . The standardized  $\beta$  for age was .075,  $p < .355$ , and the standardized  $\beta$  for classification was -.018,  $p < .816$ .

The Pearson correlation matrix, as seen in Table 4, indicates that the SMS, HHS,

Table 4. Pearson Correlation Matrix, Study One, Phase Three

	HHI	SMS	HHS	SHS	RSES Total Score	RSES Standard Deviation	RSES Interaction Variable
HHI	1.00	.332* ( $p < .000$ )	.416* ( $p < .000$ )	.213* ( $p < .002$ )	.111 ( $p < .069$ )	.089 ( $p < .118$ )	.101 ( $p < .089$ )
SMS		1.00	.649* ( $p < .000$ )	.490* ( $p < .000$ )	.456* ( $p < .000$ )	-.003 ( $p < .485$ )	.002 ( $p < .489$ )
HHS			1.00	.524* ( $p < .000$ )	.510* ( $p < .000$ )	-.003 ( $p < .483$ )	.033 ( $p < .331$ )
SHS				1.00	.486* ( $p < .000$ )	.000 ( $p < .499$ )	.015 ( $p < .421$ )
RSES Total Score					1.00	.016 ( $p < .416$ )	.015 ( $p < .422$ )
RSES Standard Deviation						1.00	-.158* ( $p < .017$ )
RSES Interaction Variable							1.00

and the SHS were significantly correlated to the HHI. In order to address the imbalance in gender, classification, and ethnicity, a stepwise regression was conducted in which gender and ethnicity were included in the first step in order to remove its contribution to the relationship between the HHI and the results from the various measures. When compared to measures of hope, the HHI remained significantly related to hope as measured by the SHS ( $R^2 = .052$ ,  $F(1, 175) = 9.358$ ,  $p = .003$ ) and the HHS ( $R^2 = .176$ ,  $F(1, 175) = 37.057$ ,  $p = .0001$ ). As hypothesized, the relationship was stronger for the HHS than for the SHS. A similar relationship was found for the relationship between the HHI and the SMS ( $R^2 = .111$ ,  $F(1, 175) = 21.477$ ,  $p = .0001$ ). According to the standards established by Cohen (1988) the SMS and the HHS correlations with the HHI are of medium effect size and the correlation between the SHS and the HHI is only a small effect size.

In regards to SE, none of the relationships were significant, although the general trend followed the hypothesized relationship (see Table 5). The RSES total scores,

Table 5. Stepwise Regression Results for RSES and HHI

	$R^2$	$F(1, 175)$	$P$
Sex, age, and classification	.041	.100	.960
RSES total score	.014	2.105	.149
RSES variability (standard deviation)	.009	1.370	.243
RSES interaction variable	.013	1.949	.164

though not significant, appear to indicate a trend towards a positive relationship between higher self-esteem and higher healthy humility. Furthermore, the trend for the non-significant relationship between the interaction variable and the HHI appears to indicate

that stable high self-esteem individuals have higher HHI scores than the unstable self-esteem individuals and the stable low self-esteem individuals (see Figure 3). The main source of difficulty in obtaining stronger results comes from the negatively skewed RSES data. Of all the scores on the RSES, only four participants would have qualified as low self-esteem, hence moderate and high self-esteem individuals were overly represented when compared to low self-esteem individuals. Had low self-esteem individuals been adequately represented (creating a normal distribution of self-esteem scores), it is possible that the results would have confirmed the hypothesis that Healthy Humility is related to stable high self-esteem (see also Morris, Brotheridge, and Urbanski, 2005). That is, a normally distributed data set would have increased variance, possibly increasing the strength of the relationship and making it easier to detect the effect of the interaction variable at a  $p < .05$  level.

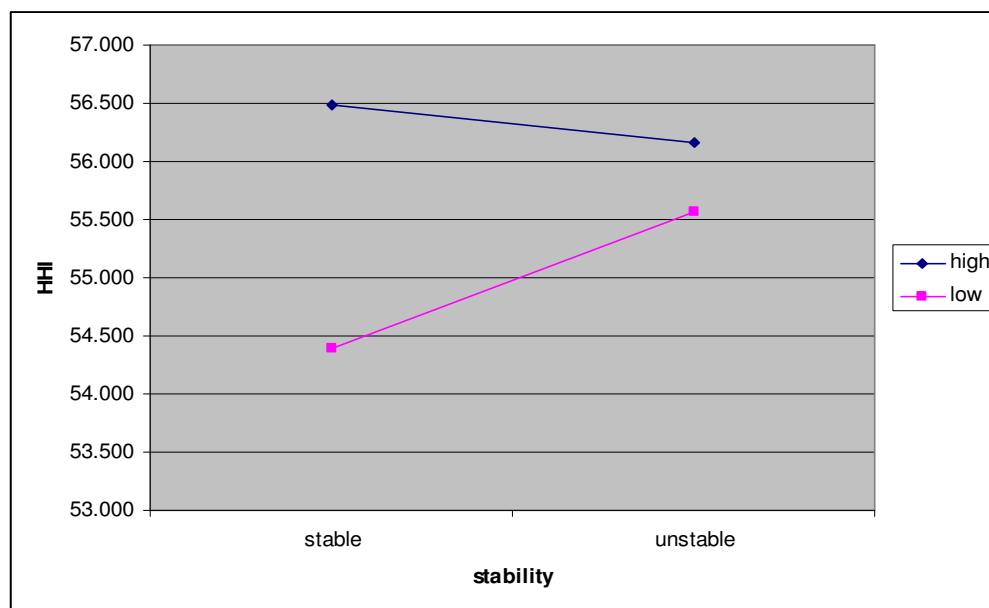


Figure 3. Graph of RSES Interaction Variable

## **METHODS: PART THREE, CLINICAL UTILITY OF THE HEALTHY HUMILITY INVENTORY**

### *Participants*

Seventy-one undergraduate students enrolled at Texas A&M were administered the Anxiety and Depression subscales of the Personality Assessment Inventory (PAI) and the eleven item Healthy Humility Inventory (HHI) online. Undergraduate students enrolled in an introductory psychology course were offered an opportunity to earn one research credit required by the class. These students voluntarily signed up and filled the questionnaire online through an online subject pool system established in the department of psychology at Texas A&M University. As in study 1, questionnaires that displayed perseverance in scoring were removed before any data was analyzed (i.e. 85% or more of items are given the same rating; about 75 items on the HHI). This disqualified four individuals; 67 participants remained in the data set. Seventy percent (n=46) of the participants were female and almost 56.7% of the participants were freshman (23.9% were sophomores, 9% were juniors, and 10.4% were seniors). The average age of the participants was 19.4 and ranged from 18-25. In regards to ethnicity, 80.6% of the participants were Caucasian (n=54), 10.4% were Latino (n=7), 3% were Asian (n=2), 1.4% were Native American/ American Indian (n=1), and 4.6% were of mixed ethnicities (n=3). Any missing data on the scales were replaced by the mean of the corresponding scale.

### *Measures*

Healthy Humility Inventory (HHI): This 11 item inventory, scored on a 6 point

Likert scale, asks participants to rate themselves on characteristics of healthy humility.

The HHI can be found in Appendix L.

Rosenberg SE Scale (RSES): A 10 item self-report scale, scored on a 5 point likert scale, assesses an individual's SE as discussed on page 22. The RSES can be found in Appendix D.

Personality Assessment Inventory (PAI; depression and anxiety scales only): Developed by Leslie Morey (1991), the 48 items scored on a 4 point likert scale that make up the depression (24 items) and anxiety scale (24 items) are taken from a 344 item self-report scale that measures symptoms of psychological distress. Furthermore, each scale is divided into three subscales, each with 8 items. Under the Anxiety scale are Affective Anxiety (Anx-A), Cognitive Anxiety (Anx-C), and Physical Anxiety (Anx-P). Anx-A taps into the affective component of anxiety, Anx-C taps into the cognition involved in anxiety (i.e. worry), and Anx-P taps into the physiological components of anxiety (e.g. tension, feeling dizzy, pounding heart). The Depression scale is composed of similar subscales tapping into the affective (Dep-A; e.g. sadness), cognitive (Dep-C; e.g. thoughts of worthlessness), and physiological (Dep-P; e.g. sleep disturbance) components of depression. The coefficient alphas for the depression and anxiety subscales were found to be 0.87 and 0.90, respectively (Morey, 1991). The 48 items drawn from the PAI and their corresponding subscales can be found in Appendix J.



### **RESULTS: PART THREE**

After conducting a Pearson's correlational analysis on all the variables, a series of step-wise regression analyses were used to further explore the relationship between healthy humility, anxiety, and depression. In the first step for both depression and anxiety, the demographic variables (age, gender, race, and classification) were entered to determine if the variables together could explain a significant portion of the variance attributed to the disorder. Furthermore, entering the variables in the first step removed any variance explained by those variables. Next, self-esteem was entered into the second step to determine if it could predict a significant amount of the variance of the predictor (i.e. the disorder in question) above and beyond what the demographic variables could explain by themselves. In the third and final step, scores from the HHI were entered to determine if healthy humility could explain a significant amount of variance attributed to the disorder being examined above and beyond that which the demographic variables and self-esteem could explain on their own. This procedure was followed for full scales first and then for the subscales.

The intercorrelations between the PAI scales, PAI subscales, RSES, and the HHI are displayed in Table 6. An examination of Table 5 shows that gender was significantly and negatively correlated with healthy humility, affective anxiety, cognitive anxiety, and overall anxiety. These results appear to indicate that men were more anxious and less humble than women. Although gender was significantly correlated to the overall HHI measure, care should be taken in interpreting this data since 70% of the participants were women. Furthermore, ethnicity was significantly correlated to humility, but again, due

to the overwhelming number of Caucasians (80.6% of participants;  $n=54$ ), these results are questionable at best. Further cross-cultural and ethnic studies should be conducted before drawing any conclusions. Of particular interest are the correlations related to the HHI. The PAI- Anxiety scale, the physiological anxiety subscale along with the PAI Depression scale and its subscales, were all negatively correlated with the HHI, implying that being high in healthy humility is related to lower symptoms of depression and anxiety. To further explore these initial results, the step-wise regression mentioned above was conducted for each scale and there subscales.

In the first step of the step-wise regression analysis exploring the relationship between anxiety and the HHI, the demographic variables (age, gender, and ethnicity) were not significant predictors of anxiety,  $\underline{R}^2 = .063$ ,  $\underline{F}(3, 63) = 1.409$ ,  $p = .249$ . Nor was RSES,  $\underline{R}^2 = .075$ ,  $\underline{F}(1, 62) = .789$ ,  $p = .378$ . On the other hand, scores on the HHI were able to significantly predict 15.5% of the variance,  $\underline{R}^2 = .086$ ,  $\underline{F}(1, 61) = 5.839$ ,  $p = .019$ . These results indicate that the HHI was able to predict a moderate and significant amount of the variance from the PAI Anxiety scale above and beyond the variance accounted for by the RSES and demographic variables. Higher levels of healthy humility were related to lower levels of anxiety. Similar results were uncovered for the PAI subscale tapping into the physiological symptoms of anxiety. The HHI was able to significantly predict 18.7% of the Anx-P variance above and beyond the variance accounted for by the RSES and demographic variable,  $\underline{R}^2 = .187$ ,  $\underline{F}(1, 61) = 11.961$ ,  $p = .001$ ; once again there was a negative relationship. In regards to the affective anxiety

Table 6. Pearson Correlation Matrix, Study Two

	<u>AGE</u>	<u>GENDER</u>	<u>ethnicity</u>	<u>HHI</u>	<u>RSES</u>	<u>Anx-A</u>	<u>Anx-C</u>	<u>Anx-P</u>	<u>Anxiety</u>	<u>Dep-A</u>	<u>Dep-C</u>	<u>Dep-P</u>	<u>Depression</u>
<u>AGE</u>	1.00	.014	.040	-.050	-.110	.141	.030	-.008	.064	.053	-.010	.049	.036
	.	(.454)	(.374)	(.343)	(.189)	(.127)	(.406)	(.475)	(.304)	(.334)	(.467)	(.348)	(.387)
<u>GENDER</u>		1.00	-.167	<b>-.203</b>	.051	<b>-.365</b>	<b>-.203</b>	-.063	<b>-.241</b>	.056	.085	-.086	.024
		.	(.088)	(.050)	(.340)	(.001)	(.050)	(.306)	(.025)	(.326)	(.248)	(.244)	(.422)
<u>Ethnicity</u>			1.00	<b>.272</b>	-.166	.124	-.044	-.075	.008	-.005	.096	-.095	.001
			.	(.013)	(.089)	(.158)	(.363)	(.274)	(.475)	(.485)	(.221)	(.223)	(.497)
<u>HHI</u>				1.00	.012	-.176	-.109	<b>-.392</b>	<b>-.238</b>	<b>-.423</b>	<b>-.331</b>	<b>-.419</b>	<b>-.460</b>
				.	(.461)	(.077)	(.190)	(.001)	(.026)	(.000)	(.003)	(.000)	(.000)
<u>RSES</u>					1.00	-.130	-.086	-.111	-.120	-.161	-.030	.067	-.052
					.	(.146)	(.244)	(.186)	(.167)	(.097)	(.405)	(.295)	(.337)
<u>Anx-A</u>						1.00	.785	.736	.929	.616	.590	.486	.666
						.	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
<u>Anx-C</u>							1.00	.710	.919	.606	.531	.410	.611
							.	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
<u>Anx-P</u>								1.00	.883	.600	.612	.552	.693
								.	(.000)	(.000)	(.000)	(.000)	(.000)
<u>Anxiety</u>									1.00	.667	.632	.526	.718
									.	(.000)	(.000)	(.000)	(.000)
<u>Dep-A</u>										1.00	.731	.584	.915
										.	(.000)	(.000)	(.000)
<u>Dep-C</u>											1.00	.418	.851
											.	(.000)	(.000)
<u>Dep-P</u>												1.00	.776
												.	(.000)
<u>Depression</u>													1.00
													.

subscale of the PAI, both gender and the HHI were strong significant predictors. Gender predicted 15.5% of the variance ( $\underline{R}^2 = .155$ ,  $\underline{F} (3, 63) = 3.864$ ,  $p = .013$ ) and the HHI predicted 23.5% of the variance ( $\underline{R}^2 = .235$ ,  $\underline{F} (1, 61) = 5.697$ ,  $p = .020$ ). In these results, men experienced higher levels of anxiety related affect than women. These results though should be interpreted cautiously since men only made up 30% of the sample used. Despite gender's significant and moderate predictive power, the HHI was still able to strongly predict a significant portion of the Anx-A variance above and beyond the variance explained by demographic variables and the RSES. However, none of the independent variables predicted a significant portion of the Cognitive Anxiety subscale's variance,  $\underline{R}^2 = .073$ ,  $\underline{F} (1, 61) = 1.145$ ,  $p = .289$ .

In regards to depression, the HHI was able to significantly predict variance for the PAI Depression scale and all its subscales (see Table 7). All of the results indicated that higher levels of healthy humility were related to lower levels of depressive

Table 7. Statistics for Models Tested for Each PAI Depression Subscale

	$\underline{R}^2$	$\underline{F} (1, 61)$	$\underline{P}$
Model testing for Affective symptoms of Depression (Dep-A)	.211	13.842	.0001
Model testing for Cognitive symptoms of Depression (Dep-C)	.150	9.287	.003
Model testing for Physiological symptoms of Depression (Dep-P)	.214	14.609	.0001

symptomatology. Additionally, the demographic variables and the RSES were not significant in any of the depression related regressions. The HHI was able to account for 23.2% of the variance for the Depression scale above and beyond the variance accounted

for by demographic variables and the RSES,  $\underline{R}^2 = .232$ ,  $\underline{F}(1, 61) = 18.070$ ,  $p = .0001$ .

Furthermore, the HHI was able to significantly predict 21.1% of Dep-A variance, 15% of Dep-C variance, and 21.4% of the Dep-P variance. All relationships were negative, indicating that higher level of healthy humility were related to lower levels of symptoms associated with depression.

## SUMMARY AND CONCLUSIONS

The primary goal of this study was to construct and validate a scale of Healthy Humility based on the theories discussed in the introduction. Six factors were originally hypothesized: being Other-Focused, Keeping One's Place in this World in Perspective, Openness, Seeking Knowledge of Self, Seeing Value in Others, and Acknowledging One's Limitations. Of the 6 factors originally hypothesized for the construction of the HHI, only Other-Focused, Seeking Knowledge of Self, and Openness consistently appeared in both phases of study one. The one factor that was consistently not found throughout study one was Acknowledgment of One's Limitations; however, it could be argued that seeking knowledge of oneself includes knowledge of one's limitations. Additionally a fourth factor originally derived from the EFA of phase 1, Spirituality, also appeared in the new data set of phase 2. Considering that humility has a long history of being associated with religions throughout the world, it stands to reason that spirituality should also be a factor of Healthy Humility. Of the four factors, Other-Focused explained the greatest amount of variance of the HHI.

### *Healthy Humility and Being Other-Focused*

Being other-focused is a cognitive bias that has been broadly defined in existing research as co-dependency (Gómez & Delgado, 2003), self-neglect (Helgeson, 2003; Zaitsoff, Geller, & Srikameswaran, 2002; Helgeson & Fritz, 2000), and sometimes to solely focusing on a task that is not self-focused (Watkins & Teasdale, 2004; Greenberg & Pyszczynski, 1986). Because of the large discrepancy in research on the Other-Focused cognitive bias and because no research could be found that operationalized

Other-Focused in a way that was consistent with current research findings, a look at the research on Self-Focused Attention may be helpful.

Self-Focused Attention (SFA) was defined by Ingram (1990) as “an awareness of self-referent, internally generated information that stands in contrast to an awareness of externally generated information derived through sensory receptors” (p. 156). Hence, SFA is a focus on the inner-world and the information derived from that self-focus. This cognitive variable was originally derived from Duval’s & Wicklund’s social psychology theory and research on self-evaluation (as cited in Ingram, 1990). The theoretical model derived from this research provided a system by which individuals self-regulate affect when they focus on themselves. According to this model, focusing on the self leads an individual to a self-evaluative process in which an individual will compare his/her perception of a particular aspect of the self to some standard (Duval & Wicklund, 1972). If the self-perception meets or surpasses these standards, then positive affect is experienced. If on the other hand, there is negative discrepancy, then the individual will experience negative affect. In response to the negative affect, the individual will attempt to either reduce the discrepancy or ignore it all together.

Carver and Scheier (1990, 1998; Carver, Lawrence, & Scheier, 1999) modified and added to this model to make it a self-regulatory process that helps an individual achieve a goal. In this model, discrepancies between perceived self and the standard and the speed with which one achieves the goal of discrepancy reduction are evaluated and addressed through discrepancy-reducing behaviors. Once the discrepancy has been sufficiently reduced, the self-regulatory process is terminated. Negative affect is

experienced if either the individual feels that the goal is unattainable or if they feel that progress in addressing the discrepancy is too slow. If the individual finds that they are still unable to meet the standard, they do one of two things. They either continue to engage in a cycle of discrepancy-reducing behaviors and evaluation until they meet the standard or the individual gives up hope and accepts that the goal is unattainable. Based on Snyder's theory of hope (2002), the latter option mentioned in the previous sentence is akin to a decrease in agency and pathways.

In adopting the model proposed by Carver and Scheier (1990), Pyszczynski and Greenberg (1987) explained the negative affect depressed individuals experience due to their self-focused cognitions. They proposed that depression occurs when an individual is unable or unwilling to stop the self-regulatory process and continue behaviors and self-evaluations aimed at reducing a discrepancy that is unlikely to be reduced. Furthermore, an individual with a depressive style will become "stuck" in these attempts to reduce irreducible discrepancies immediately after a negative event, but will ignore or not give much credit to positive events in their lives. This style only serves to increase self-deprecation, self-criticisms, and self-loathing.

SFA also appears to have a link with the processes that maintain anxiety, although the relationship is not as strong as it is in depression. Pyszczynski, Hamilton, Greenberg, and Glen (1991) proposed that the focus of the self-regulatory processes is different in anxiety than it is in depression. While the focus of depression is on some form of an already existing loss or discrepancy, the experience of anxiety is due to a potential loss or potential discrepancy. Of the different ways anxiety can be manifested



(e.g. Obsessive Compulsive Disorder, Social Anxiety, Test Anxiety), Generalized Anxiety Disorder appears to have the strongest relationship to SFA (Hope, Heimberg, Zollo, Nyman, & O'Brien, 1987; Ingram, 1990). Additionally, Hope and Heimberg (1985) were able to show that in identified social phobics, SFA was highest in individuals experiencing clinically significant anxiety. Although some data has also been able to show a relationship between test anxiety and SFA (Carver, Peterson, Follansbee, & Scheier, 1983), findings have been mixed for other forms of anxiety.

In this study, the factor, Other-Focused, in combination with the other three factors of Healthy Humility (Spirituality, Openness, and Accurate Perception of the Self) have been shown to be negatively related to lower depression and anxiety. The items that comprise the Other-Focused factor (see Appendix K) tap into a desire to help resulting from the ability to enter into, understand, or share somebody else's suffering (i.e. compassion). If we apply the previously mentioned self-regulatory models to the concept of healthy humility, then it may become possible to distinguish between Healthy and Unhealthy humility on the basis of this other-focused cognitive bias. In both Healthy and Unhealthy Humility, an individual may sympathize with the suffering of others and may make attempts at helping, but in Unhealthy Humility, depression can arise if the individual has an inaccurate perception of him/herself and, as a result, thinks too highly about their ability to end or lessen the suffering of others. For example, a standard may have been established stating that one has an obligation to save the other person from their suffering. If the individual is not able to stop the other person's suffering or sufficiently reduce the suffering, then a discrepancy exists between the

individual's unrealistic belief that he/she should be able to lessen or eradicate the suffering and the reality that the suffering continues. This individual is then faced with the task of reducing this discrepancy. If the person is able to stop the other person's suffering, then more likely than not, a temporary (i.e. unstable) increase in self-esteem is experienced. Anxiety would be experienced if the same individual feels that there is doubt or little hope that the person will be able to meet the high standards of stopping the other person's suffering.

On the other hand, the hypothetical individual with the maximum possible Healthy Humility will not face such a potentially negative experience because of the interaction between being Other-focused and having an accurate perception of the self. This individual will not hold on to a high and unreasonable standard that requires him/her to resolve the other's suffering. Instead an individual with healthy humility will understand the extent to which he/she is capable of alleviating the suffering and act accordingly. Although this individual may experience a temporary shift in affect (e.g., the individual may begin to worry), there would not be a corresponding significant shift in mood since no discrepancy between his/her standard and reality exists.

It is interesting to note that both Buddhist and Christian faiths, two of the largest world faiths representing East and West, prescribe meditations that appear to foster the notion of being other-focused and being rooted in reality. In the Buddhist meditation on compassion, the practitioner is asked to imagine him/herself in all their suffering; to hear themselves wail and bemoan their unending torments. The practitioner is asked to then feel compassion for the imagined self-image. Then the practitioner is asked to see the

suffering of others in this world. In seeing the suffering of others, whether they be hungry, imprisoned, or of those who suffer social injustice, the practitioner is supposed to be moved to compassion. The practitioner is then asked to consider that the suffering of the multitude is greater than one's own. In Christian faiths, there are meditations in which the practitioner is asked to focus upon Jesus' suffering beginning with his unease at the Gardens of Gethsemane to his final breath upon the Roman cross. Such meditations, sometimes lasting a whole week (as in the Spiritual Exercises of Ignatius Loyola), are meant to cultivate compassion for Jesus' suffering. Then practitioners are asked to "see" Jesus within others. That is, to see parallels between the sufferings of the Christian God in the lives of others and, in doing so, cultivate a compassion for others. In both these faiths, the shifting focus towards others is seen as part of the path to Buddhist enlightenment or Christian salvation which theoretically are associated with ever increasing healthy humility. Both of these faiths may offer clues to future research on how Healthy Humility is developed.

#### *Validation of the Healthy Humility Inventory*

In an effort to validate the HHI, data was collected on self-esteem and the virtues of hope and spiritual meaning. As hypothesized both measures of hope and the measure on spiritual meaning were positively correlated with Healthy Humility. Furthermore, as predicted, the HHS, a hope scale that incorporated elements of spirituality, was more strongly related to healthy humility. Though the strength of these relationships are significant, the HHI still appeared to measure a distinctly different construct as evidenced by its ability to explain a significant amount of variance in measures of

depression and anxiety above and beyond the variance explained by the other constructs (discussed below in its own section).

The third variable included in study one, self-esteem, did not correlate significantly with healthy humility. The results, however, indicate a trend that mirrors the proposed hypotheses that healthy humility is related to high stable self-esteem. Hence, it seems that high self-esteem alone does not make an individual humble. Instead, it appears that the self-esteem found in humble individuals (such as Jesus, Buddha, or The Prophet, Mohammed) is self-esteem that is intrinsically motivated and stable across time. Future studies may be able to further clarify the challenges faced by individuals with unstable high self-esteem or low self-esteem when attempting to develop humility. An obstacle these future studies will have to overcome, and a shortcoming of this study, is that on average the college population upon which so many psychological studies are based have a higher level of self-esteem than the general public (Baumeister, 1993a). The result, therefore, is skewed data that poorly represents the lower levels of self-esteem. Had all levels of self-esteem been adequately represented in this study, the relationship between self-esteem and healthy humility may have been found to be significant with a moderate to high effect size. On the other hand, because being Other-Focused is such a central component of healthy humility, it is also possible that the self-focus of self-esteem may prevent development of higher levels of healthy humility.

*Healthy Humility, Depression, and Anxiety Revisited*

The results from the pilot study conducted point to a moderate, significant, and negative relationship between healthy humility and depression as well as between healthy humility and anxiety. Although the findings were not as strong for all aspects of anxiety as it was for depression, all trends point to a negative correlation between healthy humility and depression as well as healthy humility and anxiety. These findings remained significant even when the variance explained by self-esteem, hope, and spiritual meaning was partialled out. Interestingly enough, similar findings were reported by Mascaro et al. (2004) and Arnau (in press) for existential meaning and hope, respectively. What this suggests is that clinicians can design therapy centered on or conduct assessments of virtues, such as healthy humility, for the purpose of understanding and treating depression and anxiety. Because of the limitations of correlational analysis, one cannot determine from the results of this study whether experiencing depression or anxiety reduces the level of healthy humility in an individual or if the presence of healthy humility has an inoculating effect against depression and some, if not all, symptoms of anxiety. In sum, the results of this pilot study provide evidence that the HHI has clinical utility beyond the scope of self-esteem, hope, and existential meaning; however, future research will need to explore the cause and effect relationship between healthy humility, stable high self-esteem, existential meaning, hope, and mental illness.

### *Directions for Future Research*

An additional finding of this study was that women tend to have greater levels of healthy humility than men. However, it is difficult to draw many conclusions from these findings or any other significant findings related to gender, since men were so poorly represented in the data set. As with the variable of self-esteem, skewed data adversely affects statistical finding and future replications of this study should focus on obtaining more normally distributed data. Previous research has shown that women tend to have a more modest self-representation than men (Berg, Stephan, & Dodson, 1981; Heatherington, Johnson, Burke, Friedlander, Buchanan, & Shaw, 1998). Should modesty and humility be related, then investigating what factors are more strongly associated with women than with men can yield further clues into how humility is developed. Additionally, although age was not a significant factor in any of the statistics, it may have been due to the fact that the age range for this study was between 18 and 27. Hence, future studies may want to look at how perceptions of humility change at various stages of life.

The underlying assumption to the above arguments though is that healthy humility is a virtue that can be developed. Though such a question is beyond the scope of this study, future investigations may find that as in the case of many other virtues and strengths, healthy humility is a result of both nature and nurture. One possible source of insight may be derived from the Eriksonian Psychosocial stage of *trust vs. mistrust*. Erikson (1997) postulated that hope appears early in childhood arising from the conflict between trust and mistrust. From this perspective hope is defined as trusting that one

can overcome the obstacles faced in life. Given that healthy humility has been shown to be related to hope in the current study, future researchers may be able to glean further clues into the genesis of healthy humility by studying how hope develops starting from the very earliest stages of life. Further assistance into understanding healthy humility may come from Object Relations theories (for a concise discussion of object relation theory and ego psychology, the reader is referred to Pine, 1990). According to this theory, children go through various stages in which they begin to develop a sense of “I”. In each succeeding stage, children who successfully transition through more mature stages develop a sense a self and other while gaining an increasingly more accurate perception of otherness and self. Not transitioning successfully through these stages leads to mental disorders such as Borderline Personality Disorder and Narcissism. If the assertions made by object relations theory are related to healthy humility, particularly to the factors *Other-Focused* and *Accurate perception of self*, then not only should increased severity of Borderline Personality Disorder and Narcissism be associated with lower degrees of healthy humility, but researchers will have a theoretical structure on which to base future studies on the development of healthy humility.

### *Summary*

Although the virtue of humility has been pondered for millennia, not until recently has humanity applied the scientific method to the study of this virtue. One advantage of such a long history is that researchers can draw from the theories developed by many great minds; however, efforts to apply the scientific method to the study of humility have been hampered by the lack of a reliable and valid measure of

humility. This study developed a measure of healthy humility, a hypothesized subcomponent of humility, by attempting to create a measure based on theory rather than capitalizing on statistical artifact of the data collected. First, a confirmatory factor analysis was conducted on data collected from a measure that derived its items from a thoroughly researched theoretical base. Poor fit was found between the hypothesized model and the data collected; hence, incremental exploration of the factor structure was conducted. Because the first exploratory factor analysis could have uncovered a factor structure based more on statistical artifact rather than on a “true” measure of healthy humility, a similar procedure was used on new data collected with the measure derived from the first study. Both studies produced similar four factor models; the four factors are Other-Focused, Spirituality, Accurate Self Assessment, and Openness. The resulting 11-item measure of healthy humility, the Healthy Humility Inventory (HHI), exhibited good reliability ( $\alpha = 0.8285$ ). The HHI was then validated through a procedure that determined the strength of the relationship between the HHI and variables hypothesized to be related to healthy humility—hope (as measured by the SHS and the HHS), self-esteem (as measured by the RSES), and spiritual meaning (as measured by the SMS). Analysis demonstrated that all the variables were positively correlated with healthy humility, although self-esteem was the only variable to not correlate significantly with healthy humility (most likely due to the skewed self-esteem data).

In order to provide evidence of clinical utility and that healthy humility was in fact healthy, a pilot study was conducted in which data from the HHI was compared to data collected from a measure of depression and anxiety (i.e. the PAI). The analysis



provided support for the assertion that healthy humility is associated with lowered depression and anxiety even when the contributions of self-esteem, hope, and spiritual meaning were partialled out. It is important to note, however, that the relationship was not as strong for anxiety as for depression. The implication of these findings is that, like many other virtues and strengths studied through the renewed efforts of Positive Psychology, healthy humility can provide clinicians with yet another tool for the understanding and treatment of depression and anxiety.

Although the constraints of this study prevent the HHI from claiming to be the paramount measure of humility as a whole, it is a reliable and valid measure of healthy humility and therefore provides researchers with another tool for continued research on humility. Of particular interest would be research on the development of humility. Although theories such as the Eriksonian stages of life and Ego Psychology may help provide insight into the relationship between humility and mental health, a fuller understanding of humility may have to draw upon the many centuries of thought found in world religions and the writings of philosophers.

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## APPENDIX A

*Healthy Humility Scale used for Phase one*

**Rate yourself on the following items.**

Not at all like me	Very much like me
1      2      3      4	5      6

1. I see myself as common.
2. I understand that the more I learn, the less I actually know.
3. I feel overtaken by life.
4. I find meaning in suffering.
5. I give without expectation of return.
6. I live virtuously in spite of heavenly rewards.
7. I understand that all experience is limited.
8. I acknowledge that my joys may be another's pain.
9. I have the ability to tolerate.
10. I understand that hoarding is self-centeredness.
11. I understand that simplicity is other-centeredness.
12. I remove myself from the concerns of the world.
13. I see the world in an unexaggerated way.
14. I understand that all experience is flawed.
15. I see myself as superior to others.
16. I live in awe of the greatness of life.
17. I often thirst for knowledge.
18. I can laugh at my quirks.
19. I am comfortable with myself as I am.
20. I am comfortable with appearing foolish to others.
21. I become upset when others fail to heed me.
22. I put forth my energies into knowing myself.
23. I understand that my knowledge is limited.
24. I acknowledge that there will always be those who know more than me.
25. I become upset when I am wrong.
26. I enjoy the feeling of being correct.
27. I enjoy being the center of attention.
28. I stay out of the spotlight.
29. I want to be a better listener.
30. I become upset with others for failing me.
31. I think it is important to know myself.
32. I have the ability to laugh at myself.
33. I assume inferiority of self.
34. I am attuned to self flaws.
35. I am attuned to my abilities.
36. I want to know my true self.
37. I have a stable image of myself.



**Rate yourself on the following items.**

Not at all like me						Very much like me
	1	2	3	4	5	6

75. I listen with an intention to understand.
76. I have the ability to address life without fear.
77. I am open to experiences.
78. I forget the self.
79. I have the ability to kneel in prayer.
80. I acknowledge my dependency on others.
81. I find meaning in solitude.
82. I desire to help others.
83. I embrace feminine and masculine qualities.
84. I seek wisdom.
85. I take life with a grain of salt.
86. I show gentleness towards others.
87. I am willing to sacrifice all.
88. I have a sense of humor.

## APPENDIX B

### *Categorization of items for Phase one*

#### **1. Accurate assessment of one's abilities and achievements (not low self-esteem, self-deprecation).**

Item 19	I am comfortable with myself as I am
Item 22	I put forth my energies into knowing myself
Item 31	I think it is important to know myself
Item 35	I am attuned to my abilities
Item 36	I want to know my true self
Item 40	I value praise
Item 53	I have the ability to self reflect

#### **2. Ability to acknowledge one's mistakes, imperfections, gaps in knowledge, and limitations (often vis-à-vis a higher power).**

Item 2	I understand that the more I learn, the less I actually know
Item 13	I see the world in an unexaggerated way
Item 14	I understand that all experience is flawed
Item 15	I see myself as superior to others
Item 18	I can laugh at my quirks
Item 25	I become upset when I am wrong
Item 34	I am attuned to self flaws
Item 42	I acknowledge that we are all frail, but no frailer than myself
Item 58	I am guided by some higher being
Item 62	I can easily ask for help
Item 64	I know that your own efforts are not enough
Item 67	I know that passions can be blinding
Item 68	I grasp that the rational mind is weak
Item 70	I know that language alone is not sufficient
Item 79	I have the ability to kneel in prayer
Item 80	I acknowledge my dependency on others
Item 85	I take life with a grain of salt
Item 88	I have a sense of humor

**3. Keeping of one's abilities and accomplishments – one's place in the world – in perspective (e.g. seeing oneself as just one person in the larger scheme of things).**

- Item 01 I see myself as common
- Item 07 I understand that all experience is limited
- Item 20 I am comfortable with appearing foolish to others
- Item 23 I understand that my knowledge is limited
- Item 24 I acknowledge that there will always be those who know more than me
- Item 32 I have the ability to laugh at myself
- Item 37 I have a stable image of myself
- Item 54 I reflect on my social role
- Item 55 I balance being alone and participating in society

**4. Relatively low self-focus, a “forgetting of the self,” while recognizing that one is but one part of the larger universe.**

- Item 03 I feel overtaken by life
- Item 05 I give without expectation of return
- Item 06 I live virtuously in spite of heavenly rewards
- Item 08 I acknowledge that my joys may be another's pain
- Item 10 I understand that hoarding is self-centeredness
- Item 11 I understand that simplicity is other-centeredness
- Item 12 I remove myself from the concerns of the world
- Item 21 I become upset when others fail to heed me
- Item 26 I enjoy the feeling of being correct
- Item 27 I enjoy being the center of attention
- Item 28 I stay out of the spotlight
- Item 30 I become upset with others for failing me
- Item 33 I assume inferiority of self
- Item 46 I know that my views are not the only views
- Item 50 I yearn for fame
- Item 51 I remain part of the world, but away from worldly concerns
- Item 52 I know the inner being is connected to the outer world
- Item 57 I see all of life as part of the same thing
- Item 59 I am empty of self
- Item 65 I have compassion for others
- Item 66 I feel empathy
- Item 71 I am in tune with others needs before my own
- Item 72 I put aside my pride
- Item 78 I forget the self
- Item 82 I desire to help others
- Item 86 I show gentleness towards others
- Item 87 I am willing to sacrifice all

**5. Openness to new ideas, contradictory information, and advice.**

Item 09	I have the ability to tolerate
Item 17	I often thirst for knowledge
Item 29	I want to be a better listener
Item 38	I am open to criticism
Item 41	I value criticism and praise equally
Item 43	I do not have blinders to the world (tunnel vision).
Item 49	I refrain from being cut off from the world
Item 56	I do not view the world in black and white
Item 61	I look for guidance
Item 73	I allow my values to be changed
Item 74	I keep my opinions open to change
Item 75	I listen with an intention to understand
Item 77	I am open to experiences
Item 84	I seek wisdom

**6. Appreciation of the value of all things, as well as the many different ways that people and things can contribute to our world.” (pp73-74)**

Item 04	I find meaning in suffering
Item 16	I live in awe of the greatness of life
Item 44	I have a holistic view of the world
Item 47	I acknowledge that others have things to offer me
Item 48	I believe that all things happen for a reason
Item 60	I search for meaning
Item 69	I have the ability to find a balance between the heart and the mind
Item 81	I find meaning in solitude
Item 83	I embrace feminine and masculine qualities

## APPENDIX C

*Marlowe Crowne Social Desirability scale- short form A (MCSDS-A).*

### MCSDS-A

**Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally. You can indicate your answer in the blank next to the numbers.**

- \_\_\_\_\_ 1. It is sometimes hard for me to go on with my work if I am not encouraged.
- \_\_\_\_\_ 2. I sometimes feel resentful when I don't get my way.
- \_\_\_\_\_ 3. No matter who I'm talking to, I'm always a good listener.
- \_\_\_\_\_ 4. There have been occasions when I took advantage of someone.
- \_\_\_\_\_ 5. I'm always willing to admit it when I make a mistake.
- \_\_\_\_\_ 6. I sometimes try to get even rather than forgive and forget.
- \_\_\_\_\_ 7. I am always courteous, even to people who are disagreeable.
- \_\_\_\_\_ 8. I have never been irked when people expressed ideas very different from my own.
- \_\_\_\_\_ 9. There have been times when I was quite jealous of the good fortune of others.
- \_\_\_\_\_ 10. I have never felt that I was punished without cause.
- \_\_\_\_\_ 11. I have never deliberately said something that hurt someone's feelings

**APPENDIX D***Rosenberg Self-Esteem Scale***RSES**

**Directions: Please rate the extent to which you agree or disagree with each statement listed below, according to the following scale:**

Strongly Agree	Agree	Disagree	Strongly Disagree
1	2	3	4

1. On the whole, I am satisfied with myself.
2. At times I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I am a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.



## APPENDIX E

### *Snyder Hope Scale*

#### SHS

**Directions: Read each item carefully. Using the scale shown below, please select the number that best describes how you think about yourself right now. Please take a few moments to focus on yourself and what is going on in your life at this moment. Once you have this "here and now" set, go ahead and answer each item according to the following scale:**

Definitely / False	Mostly / False	Somewhat / False	Slightly / False	/	Slightly / True	Somewhat / True	Mostly / True	Definitely True
1	2	3	4		5	6	7	8

1. If I should find myself in a jam, I could think of many ways to get out of it.
2. At the present time, I am energetically pursuing my goals.
3. There are lots of ways around any problem that I am facing now.
4. Right now, I see myself as being pretty successful.
5. I can think of many ways to reach my current goals.
6. At this time, I am meeting the goals that I have set for myself.

## APPENDIX F

### *Herth Hope Scale*

#### HHS

**Directions: Please rate the extent to which each of the following statements applies to you, according to the following scale:**

Never applies to me 1	Rarely applies to me 2	Applies to me a good deal 3	Often applies to me 4
-----------------------------	------------------------------	-----------------------------------	-----------------------------

1. I am looking forward to the future.
2. I can't bring about positive change.
3. I sense the presence of loved ones.
4. I believe that each day has potential.
5. I have inner positive energy.
6. I can recall happy times.
7. I have plans for the future.
8. I believe my outlook affects my life.
9. I have deep inner strength.
10. I have plans for today and next week.
11. I keep going even when I hurt.
12. I feel loved and needed.
13. I feel scared about my future.
14. I am committed to finding my way.
15. I have a faith that gives me comfort.
16. I can see a light even in a tunnel.
17. I believe that good is always possible.
18. I feel alone.
19. I feel time heals.
20. I see the positive in most situations.
21. I feel at a loss, nowhere to turn.
22. I have coped well in the past.
23. I feel overwhelmed and trapped.
24. I know my life has meaning and purpose.
25. I have hope even when plans go astray.
26. I am immobilized by fears and doubts.
27. I have support from those close to me.
28. I have goals for the next 3—6 weeks.
29. I just know there is hope.
30. I can seek and receive help.

## APPENDIX G

### *Spiritual Meaning Scale*

#### SMS

**Directions: Below are 14 statements with which you can agree, disagree, or for which you can have no opinion.**

Do not Agree  
1

No opinion  
2

Agree  
3

1. I feel like I have found a really significant meaning for leading my life.
2. I really don't have much of a purpose for living, even for myself.
3. There honestly isn't anything that I totally want to do.
4. I have really come to terms with what's important for me in my life.
5. I need to find something that I can really be committed to.
6. I just don't know what I really want to do with my life.
7. Other people seem to have a better idea of what they want to do with their lives than I do.
8. I have some aims and goals that would personally give me a great deal of satisfaction if I could accomplish them.
9. I really don't believe in anything about my life very deeply.
10. I have a philosophy of life that really gives my living significance.
11. I get confused when I try to understand my life.
12. I have a clear idea of what I'd like to do with my life.
13. There are things that I devote all my life's energy to.
14. I have a system of framework that allows me to truly understand my being alive.

## **APPENDIX H**

### *Categorization of Items Used in Part One, Phase two*

#### **1. Other-Focused; Relatively low self-focus; a “forgetting of the self”**

- Item 17 I am in tune with others needs before my own
- Item 24 I desire to help others
- Item 32 I have compassion for others
- Item 33 I feel empathy
- Item 34 I show gentleness towards others

#### **2. Spirituality**

- Item 1 I believe in something greater than myself.
- Item 2 I believe that all things happen for a reason
- Item 9 I am part of something greater than myself.
- Item 12 I am guided by some higher being
- Item 21 I look for guidance

#### **3. Finding Value in Others**

- Item 3 I know that my views are not the only views
- Item 6 I acknowledge that others have things to offer me
- Item 11 I embrace feminine and masculine qualities
- Item 39 I acknowledge that there will always be those who know more than me

#### **4. Seeking Knowledge of Self**

- Item 7 I want to know my true self
- Item 4 I have the ability to laugh at myself
- Item 14 I think it is important to know myself
- Item 15 I seek wisdom
- Item 20 I can laugh at my quirks.
- Item 37 I listen with an intention to understand

#### **5. Keeping of one’s abilities and accomplishments – one’s place in the world – in perspective**

- Item 8 I have the ability to self reflect
- Item 13 I am no more important than anyone else.
- Item 16 I balance being alone and participating in society
- Item 25 I am comfortable with appearing foolish to others
- Item 26 I reflect on my social role
- Item 31 I live in awe of the greatness of life
- Item 38 I acknowledge my dependency on others

*Categorization of Items Used in Part One, Phase two (Continued)*

**6. Openness to new ideas, contradictory information, and advice.**

- Item 5 I am open to criticism
- Item 18 I seek out new experiences
- Item 22 I know that language alone is not  
sufficient
- Item 27 I am open to criticism<sup>1</sup>
- Item 28 I often thirst for knowledge
- Item 30 I can easily ask for help
- Item 35 I keep my opinions open to change
- Item 36 I often challenge my beliefs

**7. Self-awareness**

- Item 10 I find meaning in solitude
- Item 19 I am attuned to self flaws
- Item 23 I am attuned to my abilities
- Item 29 I value praise

---

Note:

1. Item 5 and 27 were accidentally repeated. This error was not discovered until after the data was collected. Item 27 was removed from all analyses.

## APPENDIX I

*Items used for online Healthy Humility Inventory – Part One, Phase two*

**Rate yourself on the following items.**      Not at all like me      Very much like me

1      2      3      4      5      6

1. I believe in something greater than myself.
2. I believe that all things happen for a reason.
3. I know that my views are not the only views.
4. I have the ability to laugh at myself.
5. I am open to criticism.
6. I acknowledge that others have things to offer me.
7. I want to know my true self.
8. I have the ability to self reflect.
9. I am part of something greater than myself.
10. I find meaning in solitude.
11. I embrace both feminine and masculine qualities.
12. I am guided by some higher being.
13. I am no more important than anyone else.
14. I think it is important to know myself.
15. I seek wisdom.
16. I balance being alone and participating.
17. I am in tune with others needs before my own.
18. I seek out new experiences.
19. I am attuned to self flaws.
20. I can laugh at my quirks.
21. I look for guidance.
22. I know that language alone is not sufficient.
23. I am attuned to my abilities.
24. I desire to help others.
25. I am comfortable with appearing foolish to others.
26. I reflect on my social role.
27. I am open to criticism.
28. I often thirst for knowledge.
29. I value praise.
30. I can easily ask for help.
31. I live in awe of the greatness of life.
32. I have compassion for others.
33. I feel empathy.
34. I show gentleness towards others.
35. I keep my opinions open to change.
36. I often challenge my beliefs.
37. I listen with an intention to understand.
38. I acknowledge my dependency on others.
39. I acknowledge that there will always be those who know more than me.

## APPENDIX J

*Personality Assessment Inventory, depression and anxiety scale (Morey, 1999)*

**Anxiety subscales and corresponding items (numbers next to each item correspond to the number of that item on the PAI scale):**

### Affective (Anx-A)

- 4 I am so tense in certain situations that I have great difficulty getting by.
- 44 I can't do some things well because of nervousness.
- 84 Sometimes I am afraid for no reason.
- 124 I'm not the kind of person who panics easily.
- 164 I am a very calm and relaxed person.
- 204 I often feel as if something terrible is about to happen.
- 244 I seldom feel anxious or tense.
- 284 I am easily startled.

### Cognitive (Anx-C)

- 25 I often have trouble concentrating because I'm nervous
- 65 It's often hard for me to enjoy myself because I am worrying about things
- 105 I'm often so worried and nervous that I can barely stand it.
- 145 My friends say I worry too much.
- 185 I don't worry about things any more than most people.
- 225 I don't worry about things I can't control.
- 265 I usually worry about things more than I should.
- 305 Sometimes I get so nervous that I'm afraid I'm going to die.

### Physiological (Anx-P)

- 33 I often feel jittery
- 73 I worry so much that at times I feel like I am going to faint
- 113 Sometimes I feel dizzy when I've been under a lot of pressure
- 153 I can often feel my heart pounding.
- 193 It's easy for me to relax.
- 233 When I'm under a lot of pressure, I sometimes have trouble breathing.
- 273 I get sweaty hands often.
- 313 I have a very steady hand.

**Depression subscales and corresponding items (numbers next to each item correspond to the number of that item on the PAI scale):**

**Affective (Dep-A)**

- 6 Much of the time I'm sad for no real reason
- 46 I've forgotten what it's like to feel happy
- 86 Everything seems like a big effort.
- 126 Nothing seems to give me much pleasure.
- 166 I've lost interest in things I used to enjoy.
- 206 I have no interest in life.
- 246 Lately I've been happy much of the time.
- 286 I'm almost always a happy and positive person.

**Cognitive (Dep-C)**

- 27 I feel that I've let everyone down.
- 67 Sometimes I think I'm worthless.
- 107 I don't feel like trying anymore.
- 147 I can't seem to concentrate very well.
- 187 No matter what I do, nothing works.
- 227 I think good things will happen to me in the future.
- 267 I have something worthwhile to contribute.
- 307 I'm pretty successful at what I do.

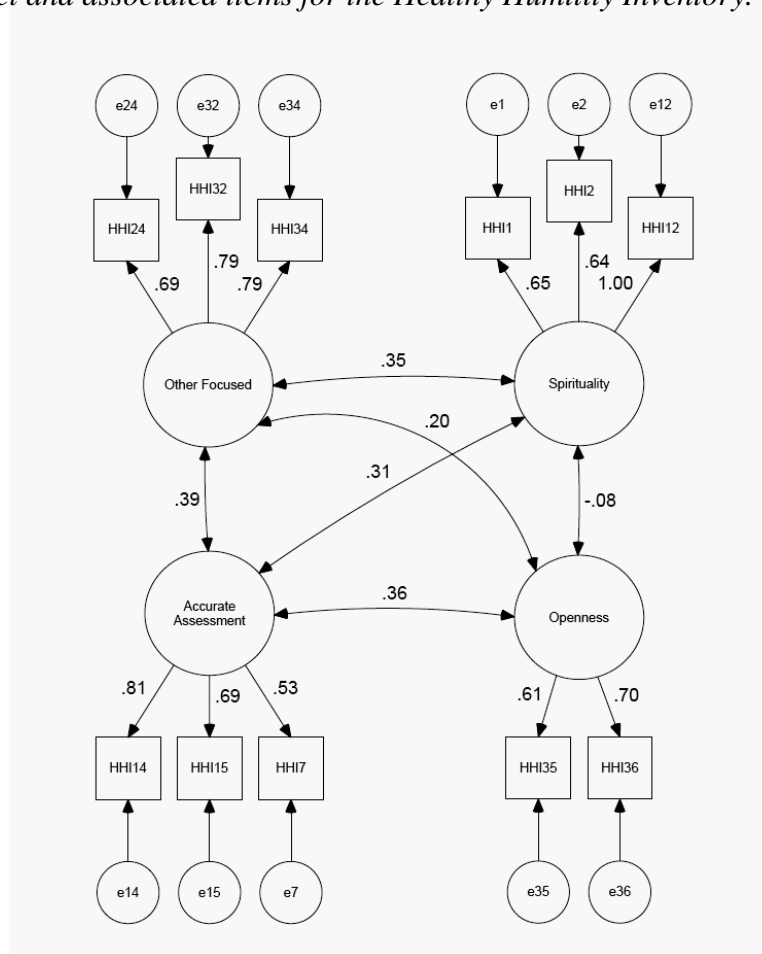
**Physiological (Dep-P)**

- 35 I hardly have any energy.
- 75 I have no trouble falling asleep.
- 115 I rarely have trouble sleeping
- 155 I've been moving more slowly than usual.
- 195 I often wake up very early in the morning and can't get back to sleep.
- 235 I have a good appetite.
- 275 I often wake up in the middle of the night.
- 315 I have very little interest in sex.



## APPENDIX K

*Factor Model and associated items for the Healthy Humility Inventory.*



**Correlation between factors:**

<b>Factor</b>	<b>R<sup>2</sup></b>
Other-Focused $\leftrightarrow$ Spirituality	.36
Other-Focused $\leftrightarrow$ Accurate Self Assessment	.39
Other-Focused $\leftrightarrow$ Openness	.21
Spirituality $\leftrightarrow$ Accurate Self Assessment	.31
Spirituality $\leftrightarrow$ Openness	-.08
Accurate Self Assessment $\leftrightarrow$ Openness	.36

**Item loading on four factors of the HHI**

<b>Factor</b>	<b>Estimate</b>
<i>Other-Focused</i>	
Item 32 I have compassion for others	.794
Item 34 I show gentleness towards others	.788
Item 24 I desire to help others	.694
<i>Spirituality</i>	
Item 12 I am guided by some higher being	.983
Item 1 I believe in something greater than myself.	.660
Item 2 I believe that all things happen for a reason.	.654
<i>Accurate Self Perception</i>	
Item 14 I think it is important to know myself	.816
Item 15 I seek wisdom	.693
Item 7 I want to know my true self	.531
<i>Openness</i>	
Item 36 I often challenge my beliefs	.684
Item 35 I keep my opinions open to change	.628

## APPENDIX L

### *Final Version of Healthy Humility Inventory*

#### HHI

**Rate yourself on the following items.**

Not at all like me			Very much like me		
1	2	3	4	5	6

- \_\_\_\_\_ 1. I believe in something greater than myself.
- \_\_\_\_\_ 2. I believe that all things happen for a reason.
- \_\_\_\_\_ 3. I keep my opinions open to change.
- \_\_\_\_\_ 4. I want to know my true self
- \_\_\_\_\_ 5. I am guided by some higher being
- \_\_\_\_\_ 6. I think it is important to know myself
- \_\_\_\_\_ 7. I seek wisdom
- \_\_\_\_\_ 8. I desire to help others
- \_\_\_\_\_ 9. I have compassion for others
- \_\_\_\_\_ 10. I show gentleness towards others
- \_\_\_\_\_ 11. I often challenge my beliefs

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### Professional Presentations:

Quiros, Alexander & Rosen, David. *Construction and validation of the healthy humility scale and its relationship to depression and anxiety*. Poster presented at annual conference of the American Psychological Assoc. Washington, DC 2005.

Quiros, Alexander & Vaid, Jyotsna. *Gendered perception of humor*. Poster presented at annual conference of the Eastern Psychological Assoc. Boston, MA 1998.

Quiros, Alexander & Vaid, Jyotsna. *Why do you think I laugh?* Paper presented at the Race and Ethnic Studies Institute at Texas A&M University. College Station, TX. 1997.

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Southwest Mental Health Center (Assessment of children and adolescents)  
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Employee Assistance Program (Brief therapy with Texas A&M employees)  
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